An Introductory Algebra Problem

The ACME rental company rents inline skates for a base fee of $5.00, plus $3.00 an hour.

1. What would be the cost to rent inline skates for 2 hours? _____ 4.5 hours? _____
   9 hours? _____

2. Make a chart of your answers from question #1.

Time (Hours)			
Cost ($)			

3. On the graph paper provided, construct a scatterplot showing the relationship between the number of hours that you rent the skates (horizontal axis) vs. the cost for renting the skates (vertical axis).

4. Connect the points on your scatterplot to show the "continuous" relationship between the time and the cost.

5. Use your graph to approximate the number of hours you would rent the inline skates if the cost was $27.50._____

The SLEEK rental company competes with ACME by renting inline skates for $8.00, plus $2.50 per hour.

6. Describe SLEEK's strategy in competing with ACME. _____

_____

7. What would be the cost to rent inline skates from SLEEK for 2 hours? _____
4.5 hours? _____ 9 hours? _____

8. Again, make a chart of your answers from the question above.

Time (Hours)			
Cost ($)			

9. Add these data points to your preceding graph to show the relationship between the number of hours that you rent skates vs. the cost for renting the skates with SLEEK's plan. Again, connect the points.

10. From your graph, determine when the cost would be the same whether you rent from ACME or SLEEK and explain how you came to this conclusion. _____

_____

11. When is it cheaper to rent from SLEEK, rather than renting from ACME? _____

_____

12. For each rental company, write an equation that shows the relationship between the number of hours H one rents the skates vs. the the cost C for renting the skates.

ACME: C = _____ SLEEK: C = _____

13. Can you use your equations (not the graph) to determine when the cost would be the same whether you rent from ACME or SLEEK ?